

Abstract

The present invention concerns a process for the detection, cloning and/or
5 sequencing of polypeptides or parts thereof, which drive the subcellular
localization of a protein containing such polypeptide or part thereof,
characterized in that the process comprises the following steps:

- (a) constructing an expression library of random nucleic acids ligated to
a reporter gene and contained in a vector molecule,
- 10 (b) transfecting a plurality of host cells with the library,
- (c) screening for the subcellular localization of the expression product of
the nucleic acid in the host cells via detection of a signal produced
by the reporter gene,
- (d) cloning such cells where the reporter gene signal is detected in a
15 certain subcellular localization, and
- (e) cloning and optionally sequencing the nucleic acid insert which
encodes the polypeptide or part thereof.

Polypeptides, driving the intracellular localization can be used to construct
fusion proteins with predetermined intracellular localization.